12.1”/15” Sunlight Readable Industrial Grade TFT LCD Monitor

IEI Sunlight Readable Display

Whether day or night, IEI's Auto-dimming high brightness display always display the clearest image

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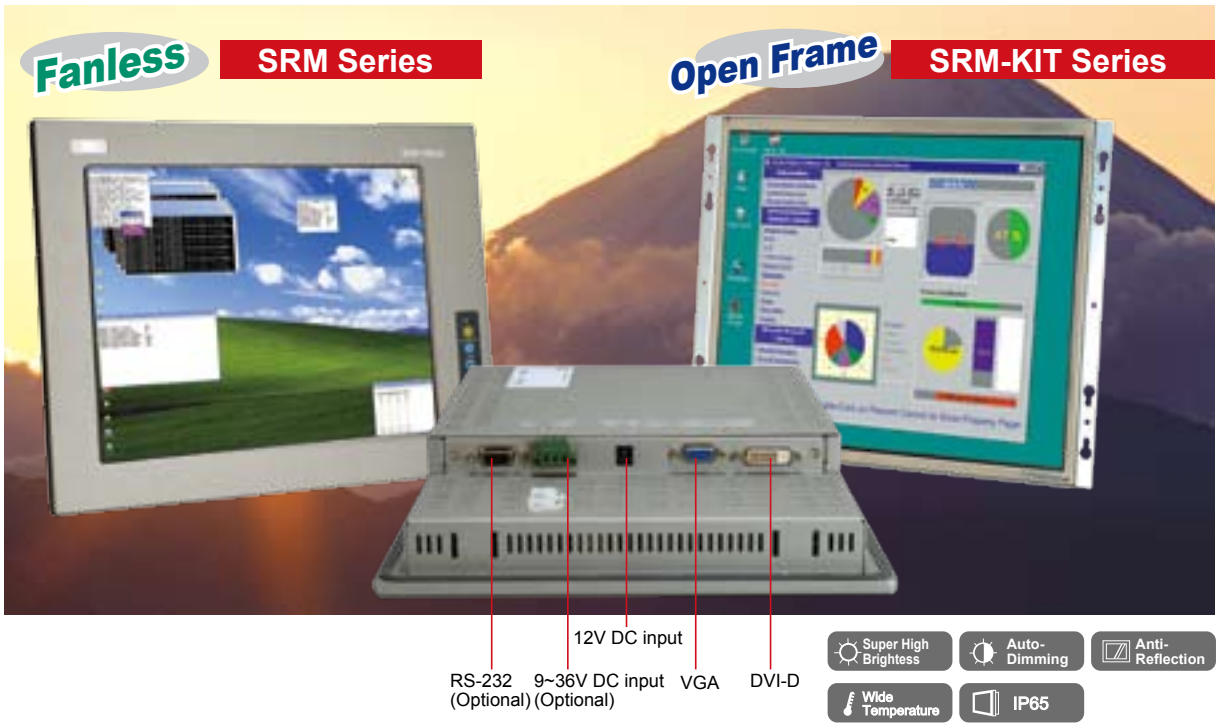


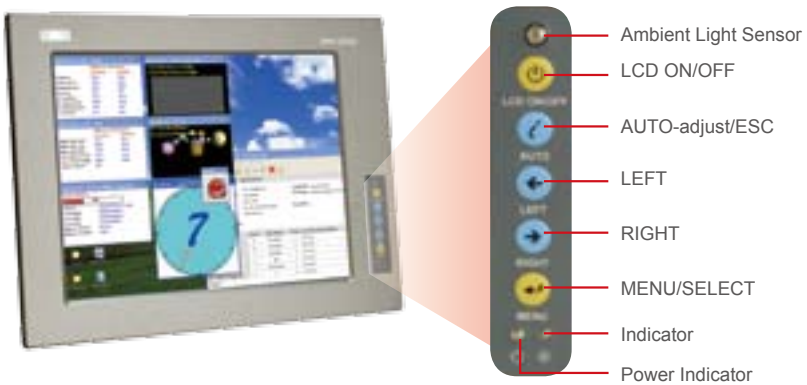
SRM Features

What a well-designed sunlight readable display must do:

- Pump out enough light for the viewing environment. For sunlight readability, this means at least 700 nits.
- Drive the backlight tubes for maximum lifetime and minimum thermal output at the desired luminance.
- Dim the display for low-ambient light viewing.
- Work within wide temperature ranges. The IEI SRM Series operational temperature range is -10ºC~ +60ºC.
- Apply anti-glare/anti-reflection technology for excellent visibility.

Front Panel OSD Functions

The IEI SRM series integrates full OSD function on the front panel. Users can easily configure all monitor functions with the waterproof OSD membrane keypad.



OSD Menu

Level 0	Level 1
Main Display Features Menu	Brightness Contrast Sharpness
Color Menu	9300K 7500K 6500K User Temp
Image Setting Menu	Auto Color Width Phase H. Position V. Position
OSD Menu	OSD Time Out OSD Position Factory Reset
Signal Menu	Digital Analog
Auto-Dimming Menu	Light Enable Light Max Light Min LUX Max LUX Min

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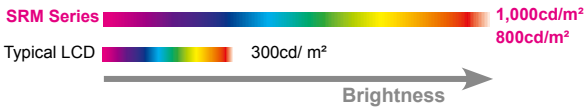
800 and 1000 nits Super High Brightness

The SRM series is designed to operate in high ambient lighting conditions at 800 nits or 1000 nits of brightness within extended operating temperature ranges and is especially designed for outdoor use under direct or indirect sunlight.

SRM-121GS

SRM-150GS

Typical high brightness monitors usually have more than six CCFLs, but the IEI SRM monitors offer super high brightness with only four CCFLs. IEI SRM panels are still readable in bright sunlight with fewer backlights which saves power and produces lower heat output.



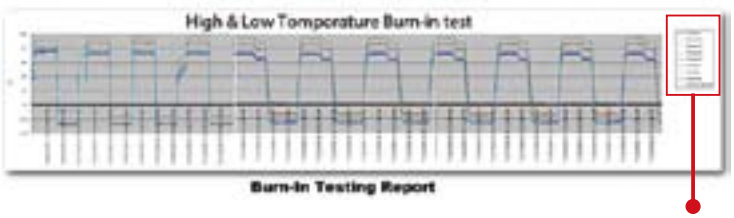
Superior Fanless Design and Low Power Consumption

SRM models are fanless, use less power and are quieter than conventional high brightness monitors that generally use several high-speed cooling fans. SRM models use between 25W and 30W of power compared to the 40W to 50W used by conventional high-brightness monitors

Operational Within a Wide Temperature Range

Typical monitors can only be used in environments that have temperatures in the 0°C~50°C range, Extended IEI environmental testing is performed to ensure the SRM series continues to function properly over its entire service life in a wide working temperature range of -10° C to +60°C. After being tested in the temperature range, the SRM series still maintained its original luminance.

IEI's in-house Burn-In testing laboratory



Nine thermocouples record temperature variations during the burn-in test. Afterwards, the SRM monitor functions normally.

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Innovative Auto-dimming Function

The SRM industrial monitor features an auto-dimming LCD that can automatically adjust the backlight brightness according to the ambient light. If the auto-dimming function is turned on, the backlight turns brighter when the ambient illuminance is high. The backlight dims automatically when the ambient brightness level is low.

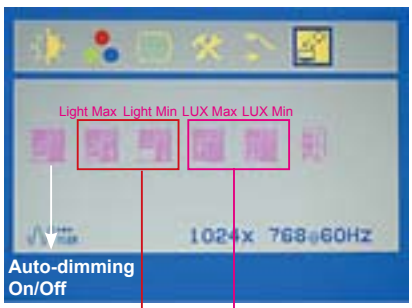
DAY

NIGHT

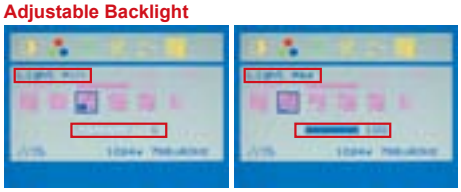
LUX Measurement of Everyday Light Source	
Light Source	Ambient Brightness (LUX)
Night without moonlight	<10
Night with moonlight	<100
Office desk lighting	500~1,000
Overcast day	1,000~2,000
Sunny day	10,000

The SRM series auto-dimming default settings can be easily customized with the OSD menu to suit any environment.

Auto-dimming Default Settings		
OSD	Default Setting	Description
Light Min	0	Minimum backlight value(%)
Light Max	100	Maximum backlight value(%)
LUX Min	0	Minimum ambient brightness (LUX)
LUX Max	5200	Maximum ambient brightness (LUX)



Adjustable Backlight



Adjustable Ambient Brightness

Light Max. and Light Min. Default Setting

To keep the LCD brightness within a specific range, not the 0~100% wide range, adjust the minimum and maximum value of the LCD backlight. For example, set the Light Min. to 30 and the Light Max. to 70. By doing this, the LCD brightness does not become too bright or too dark if the ambient light reaches the default maximum or minimum value.

LUX Max. and LUX Min. Default Setting

The SRM series is an ideal product for outdoor display. However, if the SRM series is installed in low light level environment, the default maximum lux setting (5200 lux) will be too high for the light sensor to adjust the monitor's brightness. Adjusting the maximum lux setting to match the ambinet lighting conditions will ensure the monitor's light sensor can properly read the ambient lighting conditioins and adjust the LCD brightness.

Adjusting the LUX Max. Setting for Low Ambient Lighting Conditions

For example, in a low lux office desk lighting environment, the default lux maximum value may be adjusted from 52 (5200 lux) to 4 (400 lux). Once the setting is changed, the monitor detects the ambient light and increases the LCD brightness to the maximum In this case, the LCD brightness increases in a low lux environment by decreasing the maximum LUX value while keeping other settings in default.

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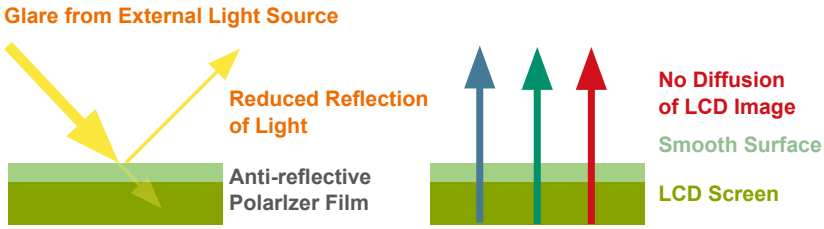
Low Reflection through Anti-Reflection Technology

Outdoor applications in daylight or other bright environments require technology that can suppress surface reflection. The SRM-121GS panel has special AR (anti-reflection) surface treatment to prevent reflection, ensuring excellent visibility in daylight conditions.

How does anti-reflection Surface work?



- Reduces intensity of reflected light
- Higher contrast
- Colors are more vibrant
- No image distortion

NEW 12.1" XGA High Resolution

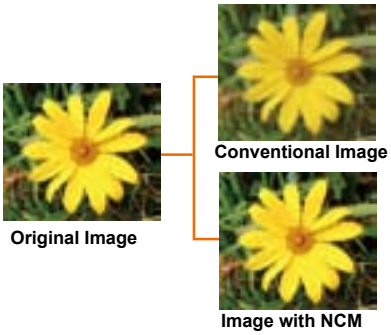
SRM-121XA series supports higher resolutions and smaller pixel pitches (0.24mm versus 0.24mm) to deliever great displays. Higher resolution of a high-density display allows more viewable content so that the user does not have to scroll as much to view the entire spreadsheet.

12.1" SVGA Screen Capture **12.1" XGA Screen Capture**

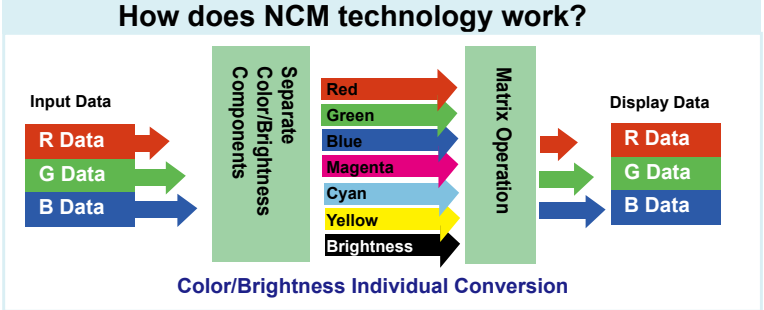
XGA Higher Resolution
- Present vivid and fine display quality
- Increase viewable content

Natural Color Matrix (NCM) Technology

POS terminals and kiosks often display advertisements with colorful images, the colors of which must remain vivid and accurate.The IEI SRM monitor with NCM optimization technology prevents this difference by separating color data and luminance components while controlling individual display colors for optimized performance.



How does NCM technology work?



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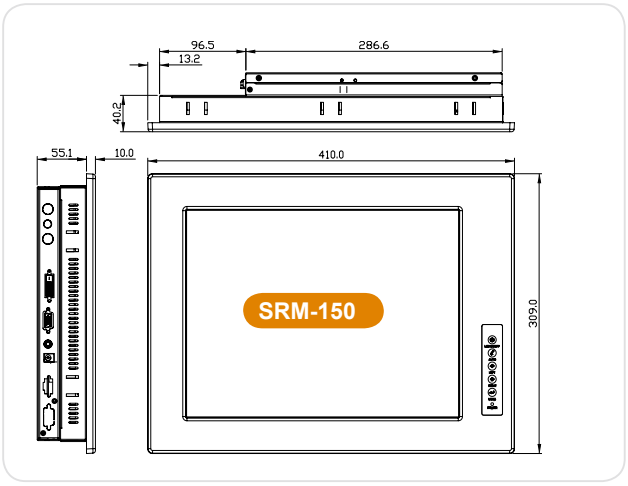
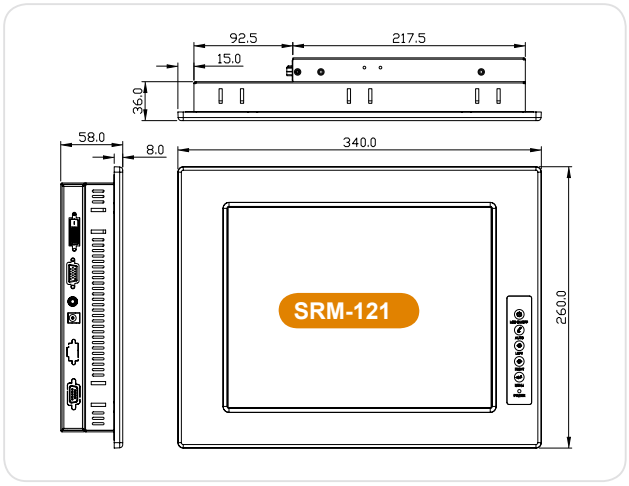
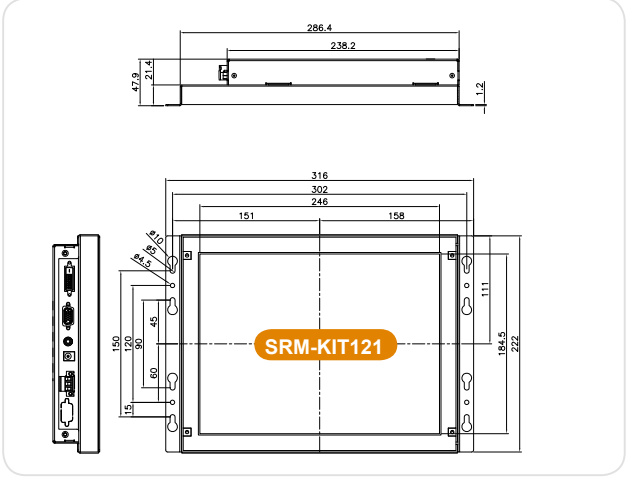
Specifications

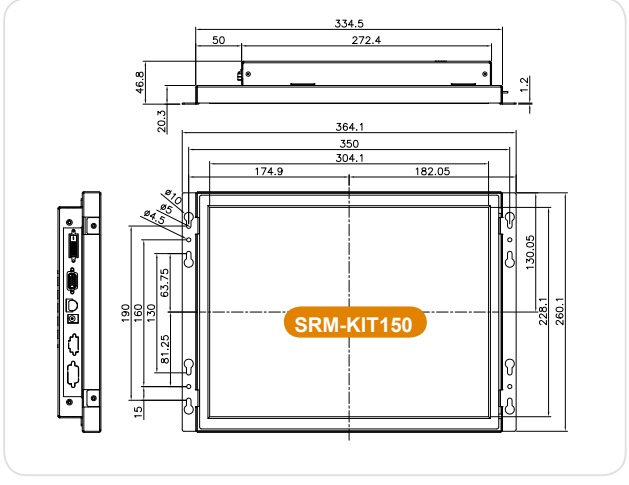
Model	SRM-121GS SRM-KIT121G	SRM-121XA SRM-KIT121XA	SRM-150GS SRM-KIT150G
LCD Size	12.1”	12.1"	15”
Max Resolution (H x V)	800 x 600 (SVGA)	1024 x 768 (XGA)	1024 x 768 (XGA)
Brightness (cd/m²)	1000	1000	800
Contrast Ratio	700:1	700:1	600:1
Display Color	262k	262k	262k
View Angle (H/V)	130°/120°	120°/120°	150°/110°
Pixel Pitch (mm)	0.3075	0.240	0.297
Operating Temperature	-10°C ~ +60°C		
Storage Temperature	-20°C ~ +70°C		
Lamp Life Time	50000hrs		
Input Interface	Analog VGA , DVI-D		
Front Frame	Aluminum		
Chassis	Heavy-duty Steel		
OSD Function	Yes		
Smart OSD	Yes		
Input Voltage	+12VDC/+ 9 ~ +36VDC(optional)		
	+12VDC		
Mounting	Wall/Panel/Rack/Arm/Stand		
	Rack		
Front Panel Protection	IP65 Compliant		
	N/A		
Power Consumption	25W		30W
Net Weight (GS Models)	3.3kgs		6kgs
Dimension (W x H x D mm)	340 x 260 x 58		410 x 309 x 65.2
	316 x 224.4 x 47.9		364.1 x 262.5 x 46

Dimensions









Sunlight Readable Display

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Mounting Kits Information

	SRM-121GS	SRM-150GS
Panel Mount Kit	PK-121M	PK-150M
Wall Mount Kit	WK-121MS-R10	WK-150MS-R10
Rack Mount Kit	RK-121MS-R10	RK-150MS-R10
LCD Monitor Arm	ARM-11	ARM-31
LCD Monitor Stand	STAND-100-RS	STAND-100-RS

Panel Mount Kits

Wall Mount

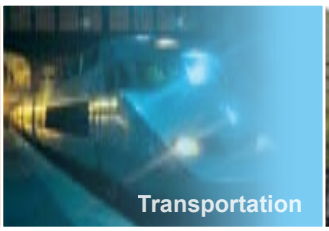
Stand

Arm

Rack Mount

Packing List

1 X AC Power Cable	1 X User Manual-CD ROM
1 X VGA Cable	1 X Power Cable for Terminal Block (For M model only)
1 X DVI cable	1 X Touch Screen RS-232 Cable / Touch Pen / Driver CD ROM (For T-R model only)
1 X 45W AC Power Adapter	1 X Touch Screen USB Cable / Touch Pen / Driver CD ROM (For USB / T-R model only)
1 X Screw set	



Ordering Information

12.1” SVGA SRM Series

	Model	Description
	SRM-121GS-R11/T-R	12.1” 1000cd/m² Sun Readable SVGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/12.1” Touch Screen, RoHS
	SRM-121GS-USB-R11/T-R	12.1” 1000cd/m² Sun Readable SVGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/12.1” USB Touch Screen, RoHS
9~36V DC	SRM-121GMS-R11/T-R	12.1” 1000cd/m² Sun Readable SVGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/9~36V DC input , w/12.1” Touch Screen, RoHS
9~36V DC	SRM-121GMS-USB-R11/T-R	12.1” 1000cd/m² Sun Readable SVGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/9~36V DC input, w/12.1” USB Touch Screen, RoHS

12.1” XGA SRM Series

NEW

	Model	Description
	SRM-121XA-R10/T-R	12.1" 1000cd/m² Sun Readable XGA LCD Monitor,Aluminum Front Panel,Silver Color,w/VGA and DVI-D input, w/12.1" Touch Screen, RoHS
	SRM-121XA-USB-R10/T-R	12.1" 1000cd/m² Sun Readable XGA LCD Monitor,Aluminum Front Panel,Silver Color,w/VGA and DVI-D input, w/12.1" USB Touch Screen, RoHS
9~36V DC	SRM-121XMA-R10/T-R	12.1" 1000cd/m² Sun Readable XGA LCD Monitor,Aluminum Front Panel,Silver Color,w/VGA and DVI-D input,w/9~36V DC input, w/12.1" Touch Screen, RoHS
9~36V DC	SRM-121XMA-USB-R10/T-R	12.1" 1000cd/m² Sun Readable XGA LCD Monitor,Aluminum Front Panel,Silver Color,w/VGA and DVI-D input,w/9~36V DC input, /12.1" USB Touch Screen, RoHS

15” XGA SRM Series

	Model	Description
	SRM-150GS-R11/T-R	15” 800cd/m² Sun Readable XGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/15” Touch Screen, RoHS
	SRM-150GS-USB-R11/T-R	15” 800cd/m² Sun Readable XGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/15” USB Touch Screen, RoHS
9~36V DC	SRM-150GMS-R11/T-R	15” 800cd/m² Sun Readable XGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/9~36V DC input , w/15” Touch Screen, RoHS
9~36V DC	SRM-150GMS-USB-R11/T-R	15” 800cd/m² Sun Readable XGA LCD Monitor, Aluminum Front Panel, Silver Color, w/VGA and DVI-D input, w/9~36V DC input , w/15” USB Touch Screen, RoHS

12.1”/15” SRM-KIT Series

	Model	Description
	SRM-KIT121G-R11	12.1" 1000 cd/m² Sun Rdadable SVGA TFT LCD kit, VGA and DVI-D input, RoHS
	SRM-KIT121XA-R10	12.1" 1000 cd/m² Sun Rdadable XGA TFT LCD kit,VGA and DVI-D input, RoHS
	SRM-KIT150G-R11	15" 800 cd/m² Sun Rdadable XGA TFT LCD kit, VGA and DVI-D input, RoHS

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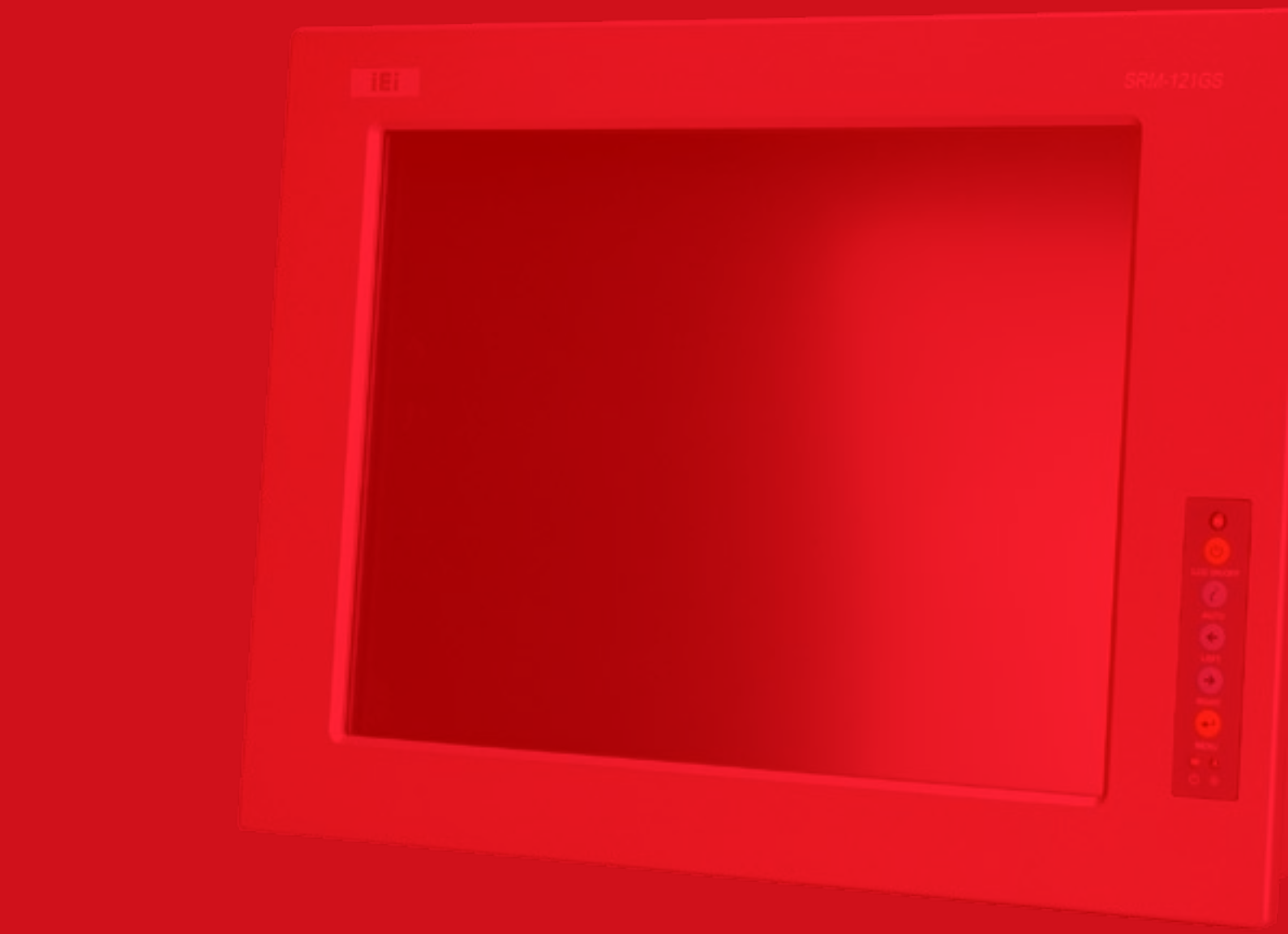

Headquarters
威強工業電腦股份有限公司 **IEI Technology Corp.**
No. 29, Jhongsing Rd.,Sijhih City,Taipei County, 221, Taiwan
TEL : +886-2-86916798 FAX : +886-2-66160028
sales@ieiworld.com www.ieiworld.com

America
IEI Technology USA Corp.
168 University Parkway, Pomona, CA 91768
TEL : +1-909-595-2819 FAX : +1-909-595-2816
sales@usa.ieiworld.com www.usa.ieiworld.com

China
威强工业电脑 **IEI Technology (Shanghai) Co., Ltd.**
上海市闵行区宜山路 **1728** 号 **3** 楼.
3F No. 1728 Yi-Shan Road, Min-Hang, ShangHai, China
TEL : +86-21-3462-7799 FAX : +86-21-3462-7798,3462-7797
sales@ieiworld.com.cn www.ieiworld.com.cn

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